



## CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

October 1, 2002

### **S. 1602** **Chemical Security Act of 2002**

*As ordered reported by the Senate Committee on Environment and Public Works  
on July 25, 2002*

#### **SUMMARY**

S. 1602 would require the Environmental Protection Agency (EPA) to develop regulations to identify sources of industrial chemicals or facilities vulnerable to unauthorized releases of hazardous chemicals. The regulations would require owners and operators of those facilities to perform vulnerability assessments of chemical sources and to establish safety and security plans. EPA also would be responsible for developing methods to guard against inappropriate disclosure of the vulnerability assessment plans prepared by the owners of chemical sources that may pose a security threat, and for certifying their compliance with these plans.

CBO estimates that implementing this bill would cost \$80 million over the 2003-2007 period, assuming appropriation of the necessary funds. Enacting S. 1602 could affect direct spending and receipts because this bill would provide for civil and criminal penalties against owners of chemical sources who fail to comply with the bill's requirements. However, CBO estimates that any such increase in civil and criminal penalties would be not be significant.

S. 1602 would require the owners and operators of certain facilities to undertake measures to protect against the unauthorized release of chemical substances. Because the owners and operators of those facilities include both public and private-sector entities, the requirements would be both intergovernmental and private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA). Based on information from EPA and industry sources, CBO estimates that the cost to comply with the mandates would not exceed the annual thresholds established by UMRA (\$58 million for intergovernmental mandates and \$115 million for private-sector mandates in 2002, adjusted annually for inflation).

## ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of S. 1602 is shown in the following table. The costs of this legislation fall within budget function 300 (natural resources and environment).

|   | By Fiscal Year, in Millions of Dollars |      |      |      |      |
|---|--|------|------|------|------|
|   | 2003                                   | 2004 | 2005 | 2006 | 2007 |
| <b>CHANGES IN SPENDING SUBJECT TO APPROPRIATION</b>                               |  |      |      |      |      |
| Development of Regulations  |  |      |      |      |      |
| Estimated Authorization Level   | 1                                      | 1    | *    | *    | *    |
| Estimated Outlays   | 1                                      | 1    | *    | *    | *    |
| Coordination with Office of Homeland Security and Technical Support               |  |      |      |      |      |
| Estimated Authorization Level   | 2                                      | 2    | 2    | 1    | 1    |
| Estimated Outlays   | 2                                      | 2    | 2    | 1    | 1    |
| Review of Vulnerability Assessments, Certification of Compliance, and Enforcement |  |      |      |      |      |
| Estimated Authorization Level   | 1                                      | 10   | 31   | 21   | 9    |
| Estimated Outlays   | 1                                      | 9    | 27   | 22   | 11   |
| Total Proposed Changes  |  |      |      |      |      |
| Estimated Authorization Level   | 4                                      | 13   | 33   | 22   | 10   |
| Estimated Outlays   | 4                                      | 12   | 29   | 23   | 12   |

NOTE: \* = Less than \$500,000.

## BASIS OF ESTIMATE

For this estimate, CBO assumes that S. 1602 will be enacted near the beginning of 2003. According to EPA, 12,000 to 15,000 chemical plants and storage sites handle hazardous chemicals that could be vulnerable to unauthorized releases of hazardous material caused by terrorist attacks. Under this legislation, EPA would work with owners and operators of these facilities to develop vulnerability assessment guidelines, identify and correct problems related to the production and storage of hazardous chemicals, and obtain verification that problems have been remedied. CBO estimates that implementing these provisions would cost \$80 million over the 2003-2007 period, assuming appropriation of the necessary amounts. Such spending would fund additional personnel, travel expenses, and contract support services necessary to implement EPA's three main responsibilities under this

bill—to develop regulations, coordinate with the Office of Homeland Security (OHS) and provide technical support, and enforce the bill’s new requirements.

Over the next five years, CBO estimates that efforts to support the development of regulations under S. 1602 would require about 12 staff-years at a cost of about \$1 million, as well as \$1 million in contract services to support economic analyses and research required to establish the regulations.

S. 1602 would require EPA to coordinate its oversight and enforcement activities with OHS and to establish and maintain computer systems for tracking information about possible threats and other recordkeeping associated with hazardous chemical sites. CBO estimates that coordinating with OHS and developing and maintaining information technology would require about 20 staff-years at a cost of about \$2 million, as well as \$6 million in contract services over the 2003-2007 period.

Enforcing the bill’s requirements would demand the most resources from EPA. The bill would require the agency to review vulnerability assessments submitted by the owners and operators of chemical sources, certify whether sites are in compliance, and pursue enforcement actions when necessary. CBO estimates that over the 2003-2007 period such activities would require about 200 staff-years at a cost of about \$20 million, plus \$22 million in travel expenses and \$28 million in contractor support services.

Based on information from EPA, CBO assumes that following the submission and review of vulnerability assessments, EPA and contractor staff would travel to most of the 12,000-15,000 chemical sites or facilities. A site visit would include up to a three-person team performing inspection duties over a three- to five-day period. Furthermore, because EPA expects that about 85 percent of the owners and operators of the sites would submit their assessments sometime in 2004, CBO estimates that the majority of the site inspections would occur over the 2004-2006 period. Thus, most of the personnel and related travel expenses would occur during that time period.

Because those prosecuted and convicted for violation of the provisions of S. 1602 could be subject to criminal fines, the federal government might collect additional fines if the legislation is enacted. Collections of such fines are recorded in the budget as governmental receipts (revenues), which are deposited in the Crime Victims Fund and later spent. Civil penalties for violations could also be imposed under the bill, and such collections are recorded in the budget as governmental receipts. In recent years EPA has imposed fines on firms handling hazardous chemicals for violations of the clear air act totaling \$1 million to \$2 million a year. CBO expects that the amount of additional fines collected under this bill would be insignificant.

## **INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT**

The bill would require EPA to develop regulations designating certain facilities as “high priority,” based upon the severity of the threat posed by an unauthorized release of chemicals from those facilities. Owners and operators of facilities designated as high priority would be required to undertake specific measures to protect against terrorist attacks, criminal acts, or other types of chemical releases. Because the high-priority facilities would be selected from about 15,000 public and private entities (including public water utilities and firms in the chemical industry), the bill would impose both intergovernmental and private-sector mandates, as defined in UMRA.

Specifically, S. 1602 would require that owners and operators of affected facilities conduct an assessment of the vulnerability of their facility, identify the hazards that may result from a substance’s release, and develop and implement a plan to prepare, prevent, and respond to a release. According to EPA, owners and operators would be granted some flexibility in developing and implementing the response plans and could choose to upgrade security, redesign the manufacturing, refinement, or treatment processes that occur at the facility, or substitute for the materials used in their chemical processes. S. 1602 would further require that owners and operators certify completion of both the assessment and plan, submit copies to EPA, maintain records at the facility, and complete a periodic review of the assessment and plan.

According to government and industry representatives, a substantial number of the facilities potentially affected by the bill’s provisions are actively engaged in activities similar to those that would be required under S. 1602. Such facilities are acting either in response to the terrorist attacks of September 11, 2001, as a condition of membership in chemical industry associations, or to comply with the Public Health Security and Bioterrorism Preparedness and Response Act of 2002. EPA has indicated that the efforts of such facilities would likely satisfy the requirements of the bill. Therefore, CBO expects that enactment would impose few additional costs on those facilities. Further, EPA does not expect to use its authority under the bill to require that owners and operators incorporate the more costly measures of process redesign or material substitution in order to mitigate the threat of a chemical release.

Assuming that EPA does not use such authority, and based on information from government and industry sources on the costs of measures that would protect against a release, CBO estimates that the total cost of the mandates contained in the bill would not exceed the annual thresholds established by UMRA (\$58 million for intergovernmental mandates and \$115 million for private-sector mandates in 2002, adjusted annually for inflation).

**ESTIMATE PREPARED BY:**

Federal Costs: Susanne S. Mehlman

Impact on State, Local, and Tribal Governments: Greg Waring

Impact on the Private Sector: Lauren Marks

**ESTIMATE APPROVED BY:**

Robert A. Sunshine

Assistant Director for Budget Analysis